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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,633	03/31/2004	Yoshiharu Tanaka	PTGF-03090	3832

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MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

NEGRON, ISMAEL

ART UNIT PAPER NUMBER

2875

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,633

Applicant(s)

TANAKA ET AL.

Examiner

Ismael Negron

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 5-23 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Title

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: ~~Luminescent Indicator and Vehicle Rearview Mirror Apparatus~~ **including LED Illumination Apparatus.**

Abstract

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, the abstract should include the technical disclosure of the improvement. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because it fails to concisely state the subject matter of the invention. Correction is required. See MPEP § 608.01(b).

The Examiner respectfully suggests amending the abstract as follows:

~~A luminescent indicator has~~ **vehicle rearview mirror including a housing, a mirror,** an LED that has a light emitting element and plane-radiates light in a direction nearly vertical to the optical axis of the light emitting element, and a light-guiding member in which at least the one LED is incorporated at a predetermined position. The light-guiding member has a light reflection surface that reflects light to be plane-radiated from the LED and that allows the reflected light to be radiated in a desired direction, and a light radiation surface that allows direct light to be directly emitted from the LED and the reflected light to be externally radiated the light radiation surface.

Claim Objections

3. Claim 5 is objected to because of the following informalities: the phrase "*a light guiding member that is attached to the housing such that it is exposed in an opening formed at part of the outer surface of the housing and that houses at least the one LED at a predetermined position*" (lines 8-11) fails to clearly present the at least one LED as

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being positioned within the light guiding member (as described by the detailed description and shown in the drawings), but could be interpreted to recite such LED as being positioned within the opening of the housing.

4. The examiner respectfully suggests amending Claim 5 as follows:

A rearview mirror apparatus for looking the backward circumstances of a vehicle, comprising:

a housing that includes a mirror disposed on its back side;

~~an~~ at least one LED that includes a light emitting element and ~~that~~ plane-radiates light in a direction nearly vertical to the optical axis of the light emitting element; and

a light guiding member ~~that is~~ attached to the housing such that it is exposed in an opening formed at part of the outer surface of the housing, ~~the and that houses~~ at least the one LED **being located within the light guiding member** at a predetermined position;

wherein the light-guiding member allows part of light radiated from the LED to be transmitted through and allows other part of light radiated from the LED to be reflected on its inner surface to be radiated in a desired direction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over MISHIMAGI (U.S. Pat. 6,769,798) in view of SOMMERS (U.S. Pat. 6,674,096).

6. MISHIMAGI discloses a vehicle rear view mirror having:

- **a housing (as recited in claim 5), Figure 3, reference number 22;**
- **a mirror (as recited in claim 5), Figure 3, reference number 18;**
- **the mirror being disposed on the back side of the housing (as recited in claim 5), as seen in Figure 3;**
- **at least one LED (as recited in claim 5), Figure 3, reference number 27;**
- **the LED including a light emitting element (as recited in claim 5), inherent;**
- **a light guiding member (as recited in claim 5), Figure 1, reference number 26;**

- **the housing having an opening formed at part of its outer surface (as recited in claim 5), Figure 2, reference number 22b;**
- **the light guiding member being attached to the housing and exposed in the opening (as recited in claim 5), column 6, line 66 to column 7, line 1;**
- **the at least one LED being located within the light guiding member at a predetermined position (as recited in claim 5), as seen in Figure 1;**
- **the light-guiding member allowing part of light radiated from the LED to be transmitted through and allowing other part of light radiated from the LED to be reflected on its inner surface to be radiated in a desired direction (as recited in claim 5), column 7, lines 40-49;**
- **the light guiding member having a front face formed along the outer shape of the housing (as recited in claim 6), inherent, as seen in Figure 1;**
- **the light guiding member having a back face opposite to the front face (as recited in claim 6), inherent, as seen in Figure 1;**

- the back face being provided with a step portion to diffuse light radiated from the LED (as recited in claim 6), as seen in Figure 1;
- the step portion functioning as a reflection surface that reflects light radiated from the LED or light reflected on at least part of the front face and back face of the light guiding member in a desired direction to allow the light to be externally radiated from the front face the light guiding member (as recited in claim 7), column 7, lines 28-34;
- the at least one LED being disposed between the front face and back face of the light guiding member (as recited in claim 8), as evidenced by Figure 1;
- the at least one LED being disposed near the outer edge of the housing (as recited in claim 8), as seen in Figure 1;
- the light guiding member having a V-shaped notch on the back face (as recited in claim 9), Figure 1, reference number 26c;
- the notch serving to diffuse light radiated from the LED (as recited in claim 9), column 7, lines 40-49;

- **the light guiding member having one end that is extended near the mirror on the back side of the housing (as recited in claim 10), as seen in Figure 1;**
- **the housing being attached to a door or an engine hood of the vehicle, or to a motorcycle as the vehicle (as recited in claim 11), as seen in Figure 4; and**
- **the LED being turned on in conjunction with a blinker lamp and/or parking lamp (as recited in claim 13), column 8, lines 26-37.**

7. MISHIMAGI discloses all the limitations of the claims, except the LED plane-radiating light in a direction nearly vertical to the optical axis of the light emitting element (as recited in claim 5); and the LED emitting amber or white light (as recited in claim 12).

8. SOMMERS discloses an illumination device having:

- **an LED (as recited in Claim 5), Figure 2, reference number 10;**
- **the LED including a light emitting element (as recited in Claim 5), Figure 2, reference number 12;**
- **the LED plane-radiating light in a direction nearly vertical to the optical axis of the light emitting element (as recited in claim 5), as seen in Figure 2; and**

- **the LED having a wide range of available emission colors, such as white or amber**, column 1, lines 23-26.

9. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the patented LED illumination device of SOMMERS as the LED of the vehicle rearview mirror of MISHIMAGI, to simplify such rear view mirror structure by eliminating the need for an additional support portion perpendicular to the light guiding member (as seen in Figure 1) and to increase the efficiency of the coupling between the LED and the light guiding member, as per the teachings of SOMMERS.

10. Regarding the LED emitting amber or white light (as recited in claim 12), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use amber LED for signaling an intended turn direction of the vehicle, as suggested by MISHIMAGI (column 8, lines 26-37), as the use of such color is not only old and well known in the art, but standard for such direction indicator lamps.

11. Claims 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over MISHIMAGI (U.S. Pat. 6,769,798) in view of YAN (U.S. Pat. 5,865,529).

12. MISHIMAGI discloses a vehicle rear view mirror having:

- **a housing (as recited in claim 14)**, Figure 3, reference number 22;

- **a mirror (as recited in claim 14), Figure 3, reference number 18;**
- **the mirror being disposed on the back side of the housing (as recited in claim 14), as seen in Figure 3;**
- **at least one LED (as recited in claim 14), Figure 3, reference number 27;**
- **the LED including a light emitting element (as recited in claim 14), inherent;**
- **the LED radiating light in the optical axis direction of the light emitting element (as recited in Claim 14), as seen in Figure 1;**
- **a reflector (as recited in Claim 14), Figure 1, reference number 23;**
- **the reflector being disposed along the shape of the housing at part of the outer surface of the housing (as recited in Claim 14), as seen in Figure 1;**
- **the reflector having at least one reflection surface which allows light radiated from the LED disposed in the reflection surface to be reflected in the front or side direction of the vehicle (as recited in Claim 14), as seen in Figure 1;**

- **the reflector has two reflection surfaces for forward lighting and for sideward lighting (as recited in Claim 15), as seen in Figure 1;**
- **the reflector having a diffusion surface to diffuse incident light on its inner surface, column 7, lines 28-34;**
- **the housing being attached to a door or an engine hood of the vehicle, or to a motorcycle as the vehicle (as recited in Claim 19), as seen in Figure 4;**
- **the LED is turned on in conjunction with a blinker lamp and/or parking lamp (as recited in Claim 21), column 8, lines 26-37;**
- **the LED being disposed inside the housing such that light radiated from the light emitting element is directly radiated to the back of the vehicle (as recited in Claim 22), as evidenced by Figure 1; and**
- **the reflector having a partially reduced thickness such that light radiated from the light emitting element is directly radiated to the back of the vehicle (as recited in Claim 23), as seen in Figure 1.**

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13. MISHIMAGI (U.S. Pat. 6,769,798) discloses all the limitation of the claims, except:

- the LED radiating light in a direction nearly vertical to the optical axis direction (as recited in Claim 14);
- the reflector having a cover on its front face (as recited in Claim 16);
- the cover having a diffusion surface to diffuse incident light on its inner surface (as recited in Claim 17);
- the cover being transparent or semi-transparent (as recited in Claim 18);
- the cover being colored in amber or colorless (as recited in Claim 18);
- the LED emitting amber or white light (as recited in Claim 20).

14. YAN discloses an illumination device having:

- **an LED (as recited in Claim 14), Figure 6, reference number 14;**
- **the LED including a light emitting element (as recited in Claim 14), Figure 6, reference number 140;**
- **the LED plane-radiating light in a direction nearly vertical to the optical axis of the light emitting element (as recited in claim 14), as seen in Figure 6; and**

- **the LED having a wide range of available emission colors, such as white or amber**, column 3, lines 49-51.

15. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the patented LED illumination device of YAN as the LED of the vehicle rearview mirror of MISHIMAGI, to simplify such rear view mirror structure by eliminating the need for an additional support portion perpendicular to the light guiding member (as seen in Figure 1) and to increase the efficiency of the coupling between the LED and the light guiding member, as per the teachings of YAN.

16. Regarding the cover, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include a cover in the patented vehicle rear view mirror of MISHIMAGI to protect the reflector from scratches and contaminants.

17. Regarding the cover being transparent or semi-transparent, colored in amber or colorless (as recited in Claim 18), or the LED emitting amber or white light (as recited in Claim 20), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made for the vehicle rear view mirror of MISHIMAGI and YAN to use the color amber for signaling an intended turn direction of the vehicle, as suggested by MISHIMAGI (column 8, lines 26-37), as the use of such color is not only old and well known in the art, but standard for such direction indicator lamps.

Relevant Prior Art

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gazda (U.S. Pat. 2,580,014), **Zimmermann et al.** (U.S. Pat. 6,099,153) and **Schwanz et al.** (U.S. Pat. 6,299,334) disclose vehicle rear view mirrors including illumination means for functioning as vehicle turning indication lights.

Johnson (U.S. Pat. 3,774,021) and **Althaus et al.** (U.S. Pat. 4,638,343) disclose LED illumination devices including means for radiating light in a direction nearly vertical to the optical axis of the LED chip.

Pasco (U.S. Pat. 4,323,951), **Garay et al.** (U.S. Pat. 6,183,099), **Perlo et al.** (U.S. Pat. 6,761,475), **Desai** (U.S. Pat. 6,773,154), **Klettke** (U.S. Pat. App. Pub. No. 2005/0237766) disclose LED illumination devices including a light guiding member and an Led positioned within the light guiding member, and including means for radiating light in a direction nearly vertical to the optical axis of the LED chip.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (571) 273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800



Ismael Negron
Examiner
AU 2875